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Alameda County  
Environmental Health

**SUSTAINABLE STRATEGIES FOR GLOBAL LEADERS**

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January 29, 2009  
DELTA Project No. SCA421211  
SAP No. 135782

Mr. Jerry Wickham  
Alameda County Health Care Services Agency  
1131 Harbor Bay Parkway, Suite 250  
Alameda, California 94502-6577

**Re: FOURTH QUARTER 2008 GROUNDWATER MONITORING  
REPORT  
Shell-Branded Service Station  
4212 First Street  
Pleasanton, California**



Dear Mr. Wickham:

On behalf of Shell Oil Products (SHELL), Delta Consultants (DELTA) has prepared this *Fourth Quarter 2008 Groundwater Monitoring Report* for the above referenced site. The sampling activities at the site were performed by Blaine Tech Services, Inc. under contract to SHELL and included the collection of groundwater samples and static water level measurements. A DELTA staff member, under the supervision of a California Registered Civil Engineer or a California Professional Geologist, performed the data evaluation.

This quarterly report represents DELTA's professional opinions based upon the currently available information and is arrived at in accordance with currently acceptable professional standards. This report is based upon a specific scope of work requested by the client. The Contract between DELTA and its client outlines the scope of work, and only those tasks specifically authorized by that contract or outlined in this report were performed. This report is intended only for the use of DELTA's Client and anyone else specifically listed on this report. DELTA will not and cannot be liable for unauthorized reliance by any other third party. Other than as contained in this paragraph, DELTA makes no express or implied warranty as to the contents of this report.

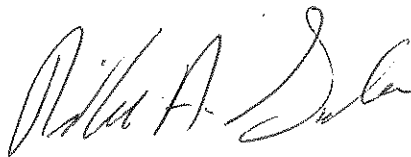
Mr. Jerry Wickham  
Alameda County Health Care Services Agency  
January 29, 2009  
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If you have any questions regarding this site, please contact Ms. Suzanne McClurkin-Nelson (DELTA Site Manager) at (408) 826-1875 or Mr. Denis Brown (SHELL Project Manager) at (707) 865-0251.

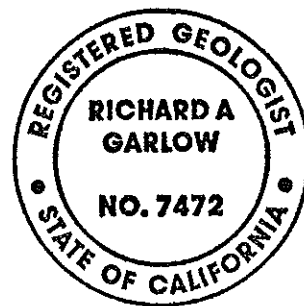
Sincerely,  
Delta Consultants



Suzanne McClurkin-Nelson  
Senior Project Manager



Richard A. Garlow, M.S., P.G. 7472  
Project Specialist



Attachment: Fourth Quarter 2008 Groundwater Monitoring Report

cc: Mr. Denis Brown, Shell Oil Products US

## SHELL QUARTERLY STATUS REPORT

Station Address:	4212 First Street, Pleasanton, California
DELTA Project No.:	SCA421211
SHELL Project Manager / Phone No.:	Denis Brown / (707) 865-0251
DELTA Site Manager / Phone No.:	Elisabeth Silver / (425) 498-7736
Primary Agency / Regulatory ID No.:	Alameda County Health Care Services Agency (ACHCSA) / Jerry Wickham
Other Agencies to Receive Copies:	None

### WORK PERFORMED THIS QUARTER (FOURTH –2008):

1. Quarterly groundwater monitoring and sampling. Submitted quarterly report.

### WORK PROPOSED FOR NEXT QUARTER (FIRST –2009):

1. Quarterly groundwater monitoring and sampling. Submit quarterly report.
2. Conduct pilot Dual-Phase Extraction test and submit report.

Current Phase of Project:	Groundwater monitoring
Site Use:	Shell-branded Service Station
Frequency of Sampling:	Quarterly
Frequency of Monitoring:	Quarterly
Is Separate Phase Hydrocarbon Present On-site (Well #'s):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Cumulative SPH Recovered to Date :	NA
SPH Recovered This Quarter :	None
Sensitive Receptor(s) and Respective Direction(s):	The Arroyo Del Valle Creek is located approximately 1,133 feet north-west of the site. A supply well (3S/1E-21C1) was located 1,000 feet northwest of the site and a municipal well (3S/1E-16P10) was located approximately 1,200 feet north of the site.
Site Lithology:	The site is underlain by interlayered silt, silty sand, gravelly sand and silty gravel.
Current Remediation Techniques:	Dual-Phase Extraction
Permits for Discharge:	None
Groundwater Recovered This Quarter:	117.3 gallons were recovered during sampling on December 3, 2008.
Approximate Depth to Groundwater:	32.12 to 35.19 feet below top of well casing. 80.84 feet below top of well casing in deeper Well MW1-B.

## SHELL QUARTERLY STATUS REPORT (CONT.)

Groundwater Gradient:	Northeast at approximately 0.06 ft/ft
Current Agency Correspondence:	ACHCSA letter dated September 9, 2008
Date of Most Recent Work Plan Approval:	September 9, 2008
Site History:	
Case Opening	1985
Onsite Assessment	1986 - 2007
Offsite Assessment	None
Passive Remediation	Monitoring Natural Attenuation
Active Remediation	June 2007, Step Draw Down; June – August 2007, Batch Extraction
Closure	None
Summary of Unusual Activity:	None

## **ATTACHMENTS:**

### Tables:

Table 1 – Well Concentrations

### Figures:

Figure 1 – Site Location Map

Figure 2 – Groundwater Elevation Contour Map

Figure 3 – Hydrocarbon Distribution in Groundwater Map

### Appendices:

Appendix A – Field Data Sheets

Appendix B – Field Procedures

Appendix C – Laboratory Report and Chain-of-Custody Documentation

## TABLE

**TABLE 1**  
**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
**4212 First Street**  
**Pleasanton, CA**

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)
MW-1	6/16/1999	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	371.20	37.81	333.39
MW-1	6/30/1999	89.0	5.89	<0.500	<0.500	0.652	<5.00	NA	NA	NA	NA	NA	371.20	33.65	337.55
MW-1	9/24/1999	1,560	473	<10.0	<10.0	22.8	<2.50	NA	NA	NA	NA	NA	371.20	37.04	334.16
MW-1	12/8/1999	1,020	375	<5.00	<5.00	15.2	<50.0	NA	NA	NA	NA	NA	371.20	36.79	334.41
MW-1	2/10/2000	523	106	<5.00	<5.00	31.8	2.9	NA	NA	NA	NA	NA	371.20	34.90	336.30
MW-1	5/17/2000	<50.0	<0.500	<0.500	<0.500	<0.500	37	29.5	NA	NA	NA	NA	371.20	32.55	338.65
MW-1	8/3/2000	808	290	<2.50	<2.50	8.9	<12.5	NA	NA	NA	NA	NA	371.20	39.13	332.07
MW-1	10/31/2000	507	250	0.962	<0.500	23.5	3.76	NA	NA	NA	NA	NA	371.20	37.91	333.29
MW-1	3/1/2001	<50.0	<0.500	<0.500	<0.500	<0.500	74.6	NA	NA	NA	NA	NA	371.20	39.60	331.60
MW-1	5/30/2001	780	280	<2.0	<2.0	11	NA	<2.0	NA	NA	NA	NA	371.20	39.53	331.67
MW-1	8/2/2001	1,900	580	<2.5	<2.5	12	NA	<25	NA	NA	NA	NA	371.20	39.61	331.59
MW-1	12/6/2001	840	190	<0.50	<0.50	13	NA	<5.0	NA	NA	NA	NA	371.20	39.63	331.57
MW-1	2/5/2002	2,700	650	<2.5	<2.5	7.2	NA	<25	NA	NA	NA	NA	371.20	35.53	335.67
MW-1	6/17/2002	2,500	550	<2.0	<2.0	5.9	NA	<20	NA	NA	NA	NA	371.20	39.29	331.91
MW-1	7/25/2002	690	130	<0.50	<0.50	4.4	NA	18	NA	NA	NA	NA	371.20	39.39	331.81
MW-1	11/14/2002	400	31	<0.50	<0.50	2.7	NA	27	NA	NA	NA	NA	371.20	40.00	331.20
MW-1	2/12/2003	840	0.85	<0.50	<0.50	<0.50	NA	40	NA	NA	NA	NA	371.20	32.92	338.28
MW-1	5/14/2003	680	190	<2.5	<2.5	<5.0	NA	95	NA	NA	NA	NA	371.20	32.57	338.63
MW-1	7/29/2003	870	190	<2.5	<2.5	<5.0	NA	150	NA	NA	NA	NA	371.20	33.82	337.38
MW-1	11/19/2003	<200	14	<2.0	<2.0	<4.0	NA	230	NA	NA	NA	NA	371.20	38.28	332.92
MW-1	2/19/2004	58 d	11	<0.50	<0.50	<1.0	NA	85	NA	NA	NA	NA	371.20	36.93	334.27
MW-1	5/3/2004	670	310	<2.5	<2.5	<5.0	NA	420	NA	NA	NA	NA	371.20	32.70	338.50
MW-1	8/24/2004	430 d	34	<2.5	<2.5	<5.0	NA	690	NA	NA	NA	NA	371.20	34.66	336.54
MW-1	11/15/2004	<250	29	<2.5	<2.5	<5.0	NA	470	NA	NA	NA	NA	371.20	38.27	332.93
MW-1	2/2/2005	540 e	87	<2.5	<2.5	<5.0	NA	700	NA	NA	NA	NA	371.20	32.02	339.18
MW-1	5/5/2005	460 e	88	<2.5	<2.5	<5.0	NA	300	NA	NA	NA	NA	371.20	36.82	334.38
MW-1	8/5/2005	910	230	<2.5	<2.5	<5.0	NA	480	NA	NA	NA	NA	371.20	33.35	337.85
MW-1	11/22/2005	1,760	27	<0.500	<0.500	1	NA	1,160	NA	NA	NA	NA	371.20	33.42	337.78
MW-1	2/7/2006	4,620	225	<0.500	<0.500	<0.500	NA	1,480	NA	NA	NA	NA	371.20	31.63	339.57

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Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)
MW-1	5/16/2006	1,100	130	<0.50	2	2	NA	1,600	NA	NA	NA	NA	371.20	31.16	340.04
MW-1	8/21/2006	2,700	86	<0.500	1	1	NA	1,960	NA	NA	NA	NA	371.20	33.07	338.13
MW-1	11/14/2006	1,400 g	30	<25	<25	<25	NA	2,100	<25	<25	<25	<1,000	371.20	33.73	337.47
MW-1	2/1/2007	800	21	<0.50	<0.50	<1.0	NA	2,300	NA	NA	NA	NA	371.20	33.02	338.18
MW-1	6/1/2007	1,400 j,k	68	<20	<20	4.4 l	NA	2,200	NA	NA	NA	NA	371.20	32.87	338.33
MW-1	8/22/2007	250 j	20	<20	<20	<20	NA	3,100	NA	NA	NA	1,500	371.20	34.64	336.56
MW-1	11/26/2007	1,800 j	33	<20	<20	<20	NA	3,100	<40	<40	<40	930	371.20	35.59	335.61
MW-1	2/19/2008	1,800 j	33	<20	<20	<20	NA	3,700	NA	NA	NA	1,700	371.20	31.05	340.15
MW-1	5/23/2008	3,700	100	<25	<25	<25	NA	3,100	NA	NA	NA	1,300	371.20	31.80	339.40
MW-1	8/7/2008	4,200	33	<25	<25	<25	NA	3,500	NA	NA	NA	<250	371.20	33.03	338.17
<b>MW-1</b>	<b>12/3/2008</b>	<b>3,400</b>	<b>34</b>	<b>&lt;25</b>	<b>&lt;25</b>	<b>&lt;25</b>	<b>NA</b>	<b>3,200</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>980</b>	<b>371.20</b>	<b>35.19</b>	<b>336.01</b>
MW-1B	9/21/2006	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	371.67	76.94	294.73
MW-1B	9/28/2006	<50	<0.50	<0.50	<0.50	<0.50	NA	21	NA	NA	NA	<20	371.67	77.15	294.52
MW-1B	11/14/2006	320 g	<5.0	<5.0	<5.0	<5.0	NA	310	<5.0	<5.0	<5.0	<200	371.67	69.38	302.29
MW-1B	2/1/2007	77	0.53	<0.50	<0.50	<1.0	NA	150	NA	NA	NA	NA	371.67	60.92	310.75
MW-1B	6/1/2007	<50 j,k	0.25 l	<1.0	<1.0	<1.0	NA	74	NA	NA	NA	NA	371.67	61.07	310.60
MW-1B	8/22/2007	<50 j	0.25 l	<1.0	<1.0	<1.0	NA	35	NA	NA	NA	7.1 l	371.67	77.54	294.13
MW-1B	11/26/2007	<50 j	<0.50	<1.0	<1.0	<1.0	NA	1.7	<2.0	<2.0	<2.0	<10	371.67	68.50	303.17
MW-1B	2/19/2008	65 j	2.6	4.2	<1.0	1.1	NA	58	NA	NA	NA	<10	371.67	57.21	314.46
MW-1B	5/23/2008	<50	<0.50	<1.0	<1.0	<1.0	NA	3.6	NA	NA	NA	<10	371.67	57.53	314.14
MW-1B	8/7/2008	<50	<0.50	<1.0	<1.0	<1.0	NA	1.1	NA	NA	NA	<10	371.67	72.51	299.16
<b>MW-1B</b>	<b>12/3/2008</b>	<b>&lt;50</b>	<b>&lt;0.50</b>	<b>&lt;1.0</b>	<b>&lt;1.0</b>	<b>&lt;1.0</b>	<b>NA</b>	<b>3.4</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>&lt;10</b>	<b>371.67</b>	<b>80.84</b>	<b>290.83</b>
MW-2	2/3/2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	372.40	32.65	339.75
MW-2	2/7/2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	372.40	35.51	336.89
MW-2	2/10/2000	<50.0	<0.500	<0.500	<0.500	<0.500	2.61	NA	NA	NA	NA	NA	372.40	36.62	335.78
MW-2	5/17/2000	120	4.09	<0.500	<0.500	<0.500	29	NA	NA	NA	NA	NA	372.40	32.14	340.26
MW-2	8/3/2000	<50.0	0.692	<0.500	<0.500	<0.500	40.5	36.6b	NA	NA	NA	NA	372.40	32.42	339.98



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Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)
MW-2	10/31/2000	<50.0	<0.500	<0.500	<0.500	<0.500	57.4	44.8c	NA	NA	NA	NA	372.40	33.02	339.38
MW-2	3/1/2001	173	1.64	1.65	2.86	3.97	127	167	NA	NA	NA	NA	372.40	32.54	339.86
MW-2	5/30/2001	<50	<0.50	<0.50	<0.50	<0.50	NA	170	NA	NA	NA	NA	372.40	32.42	339.98
MW-2	8/2/2001	<50	<0.50	<0.50	<0.50	<0.50	NA	160	NA	NA	NA	NA	372.40	32.55	339.85
MW-2	12/6/2001	<50	<0.50	<0.50	<0.50	<0.50	NA	170	NA	NA	NA	NA	372.40	33.15	339.25
MW-2	2/5/2002	<50	0.72	<0.50	<0.50	1.7	NA	170	NA	NA	NA	NA	372.40	32.29	340.11
MW-2	6/17/2002	<50	<0.50	<0.50	<0.50	<0.50	NA	260	NA	NA	NA	NA	372.40	32.63	339.77
MW-2	7/25/2002	<50	<0.50	<0.50	<0.50	<0.50	NA	280	NA	NA	NA	NA	372.40	32.80	339.60
MW-2	11/14/2002	120	13	9	3.8	14	NA	430	NA	NA	NA	NA	372.40	33.31	339.09
MW-2	2/12/2003	<100	<1.0	<1.0	<1.0	<1.0	NA	430	NA	NA	NA	NA	372.40	32.15	340.25
MW-2	5/14/2003	<250	<2.5	<2.5	<2.5	<5.0	NA	470	NA	NA	NA	NA	372.40	32.01	340.39
MW-2	7/29/2003	<250	<2.5	<2.5	<2.5	<5.0	NA	670	NA	NA	NA	NA	372.40	32.51	339.89
MW-2	11/19/2003	<50	<0.50	<0.50	<0.50	<1.0	NA	54	NA	NA	NA	NA	372.40	33.83	338.57
MW-2	2/19/2004	65	<0.50	3.4	1.4	6.5	NA	8.2	NA	NA	NA	NA	372.40	32.68	339.72
MW-2	5/3/2004	<50	<0.50	<0.50	<0.50	<1.0	NA	5.2	NA	NA	NA	NA	372.40	32.07	340.33
MW-2	8/24/2004	<50	<0.50	<0.50	<0.50	<1.0	NA	2.7	NA	NA	NA	NA	372.40	32.44	339.96
MW-2	11/15/2004	<50	<0.50	<0.50	<0.50	<1.0	NA	1.3	NA	NA	NA	NA	372.40	32.95	339.45
MW-2	2/2/2005	<50	<0.50	<0.50	<0.50	<1.0	NA	24	NA	NA	NA	NA	372.40	31.94	340.46
MW-2	5/5/2005	72 f	<0.50	<0.50	<0.50	<1.0	NA	4.9	NA	NA	NA	NA	372.40	31.91	340.49
MW-2	8/5/2005	<50	<0.50	<0.50	<0.50	<1.0	NA	16	NA	NA	NA	NA	372.40	32.15	340.25
MW-2	11/22/2005	840	1	<0.500	<0.500	1	NA	556	NA	NA	NA	NA	372.40	32.31	340.09
MW-2	2/7/2006	3,550	<0.500	<0.500	<0.500	<0.500	NA	2,500	NA	NA	NA	NA	372.40	31.70	340.70
MW-2	5/16/2006	1,400	<5.0	<5.0	<5.0	<10	NA	1,700	NA	NA	NA	NA	372.40	31.38	341.02
MW-2	8/21/2006	1,910	<0.500	<0.500	<0.500	<0.500	NA	2,590	NA	NA	NA	NA	372.40	33.29	339.11
MW-2	11/14/2006	2,300 g	<25	<25	<25	<25	NA	2,500	<25	<25	<25	<1,000	372.40	32.67	339.73
MW-2	2/1/2007	670	<0.50	<0.50	<0.50	<1.0	NA	2,000	NA	NA	NA	NA	372.40	32.13	340.27
MW-2	6/1/2007	500 j,k	<10	<20	<20	<20	NA	2,000	NA	NA	NA	NA	372.40	32.14	340.26
MW-2	8/22/2007	100 j,k	<10	<20	<20	<20	NA	2,400	NA	NA	NA	120 l	372.40	32.93	339.47
MW-2	11/26/2007	1,600 j,k	<10	<20	<20	<20	NA	2,900	<40	<40	<40	<200	372.40	33.44	338.96

**TABLE 1**  
**WELL CONCENTRATIONS**  
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Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)
MW-2	2/19/2008	1,300 j,k	<10	<20	<20	<20	NA	3,300	NA	NA	NA	<200	372.40	31.18	341.22
MW-2	5/23/2008	1,900	<12	<25	<25	<25	NA	1,700	NA	NA	NA	<250	372.40	31.44	340.96
MW-2	8/7/2008	1,700	<10	<20	<20	<20	NA	1,300	NA	NA	NA	<200	372.40	31.94	340.46
<b>MW-2</b>	<b>12/3/2008</b>	<b>3,000</b>	<b>&lt;10</b>	<b>&lt;20</b>	<b>&lt;20</b>	<b>&lt;20</b>	<b>NA</b>	<b>2,900</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>&lt;200</b>	<b>372.40</b>	<b>32.53</b>	<b>339.87</b>
MW-3	2/3/2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	375.05	32.06	342.99
MW-3	2/7/2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	375.05	32.57	342.48
MW-3	2/10/2000	180	5.12	<0.500	<0.500	0.714	26.8	21.5a	NA	NA	NA	NA	375.05	32.77	342.28
MW-3	5/17/2000	1,360	414	<5.00	<5.00	17.6	<25.0	NA	NA	NA	NA	NA	375.05	31.00	344.05
MW-3	8/3/2000	<50.0	0.536	<0.500	<0.500	<0.500	22	NA	NA	NA	NA	NA	375.05	31.03	344.02
MW-3	10/31/2000	<50.0	<0.500	<0.500	<0.500	<0.500	31.1	NA	NA	NA	NA	NA	375.05	31.28	343.77
MW-3	3/1/2001	384	172	0.815	<0.500	8	5.16	NA	NA	NA	NA	NA	375.05	31.21	343.84
MW-3	5/30/2001	<50	<0.50	<0.50	<0.50	<0.50	NA	110	NA	NA	NA	NA	375.05	31.02	344.03
MW-3	8/2/2001	<50	<0.50	<0.50	<0.50	<0.50	NA	93	NA	NA	NA	NA	375.05	30.94	344.11
MW-3	12/6/2001	110	<0.50	<0.50	<0.50	2.3	NA	180	NA	NA	NA	NA	375.05	31.28	343.77
MW-3	2/5/2002	<50	0.89	0.6	<0.50	2.1	NA	130	NA	NA	NA	NA	375.05	31.12	343.93
MW-3	6/17/2002	<50	<0.50	<0.50	<0.50	<0.50	NA	72	NA	NA	NA	NA	375.05	31.21	343.84
MW-3	7/25/2002	<50	<0.50	<0.50	<0.50	<0.50	NA	81	NA	NA	NA	NA	375.05	30.96	344.09
MW-3	11/14/2002	<50	<0.50	<0.50	<0.50	<0.50	NA	60	NA	NA	NA	NA	375.05	31.44	343.61
MW-3	2/12/2003	<50	<0.50	<0.50	<0.50	<0.50	NA	43	NA	NA	NA	NA	375.05	31.28	343.77
MW-3	5/14/2003	<50	<0.50	<0.50	<0.50	<1.0	NA	24	NA	NA	NA	NA	375.05	31.20	343.85
MW-3	7/29/2003	<50	<0.50	<0.50	<0.50	<1.0	NA	21	NA	NA	NA	NA	375.05	31.29	343.76
MW-3	11/19/2003	<50	<0.50	<0.50	<0.50	<1.0	NA	8.2	NA	NA	NA	NA	375.05	31.86	343.19
MW-3	2/19/2004	81	0.67	4.4	1.8	8.6	NA	13	NA	NA	NA	NA	375.05	31.66	343.39
MW-3	5/3/2004	<50	<0.50	<0.50	<0.50	<1.0	NA	13	NA	NA	NA	NA	375.05	31.72	343.33
MW-3	8/24/2004	<50	<0.50	<0.50	<0.50	<1.0	NA	10	NA	NA	NA	NA	375.05	32.09	342.96
MW-3	11/15/2004	<50	<0.50	<0.50	<0.50	<1.0	NA	6.6	NA	NA	NA	NA	375.05	31.50	343.55
MW-3	2/2/2005	<50	<0.50	<0.50	<0.50	<1.0	NA	3.1	NA	NA	NA	NA	375.05	31.28	343.77
MW-3	5/5/2005	<50	<0.50	<0.50	<0.50	<1.0	NA	2.3	NA	NA	NA	NA	375.05	31.42	343.63

**TABLE 1  
WELL CONCENTRATIONS  
Shell-branded Service Station  
4212 First Street  
Pleasanton, CA**

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)
MW-3	8/5/2005	<50	<0.50	<0.50	<0.50	<1.0	NA	2.4	NA	NA	NA	NA	375.05	31.35	343.70
MW-3	11/22/2005	<50	<0.500	<0.500	<0.500	<0.500	NA	3.84	NA	NA	NA	NA	375.05	31.98	343.07
MW-3	2/7/2006	<50.0	<0.500	<0.500	<0.500	<0.500	NA	<0.500	NA	NA	NA	NA	375.05	31.24	343.81
MW-3	5/16/2006	<50	<0.50	<0.50	<0.50	<1.0	NA	4.5	NA	NA	NA	NA	375.05	31.37	343.68
MW-3	8/21/2006	<50.0	<0.500	<0.500	<0.500	<0.500	NA	4.04	NA	NA	NA	NA	375.05	31.95	343.10
MW-3	11/14/2006	<50	<0.50	<0.50	<0.50	<0.50	NA	3.8	<0.50	<0.50	<0.50	<20	375.05	32.24	342.81
MW-3	2/1/2007	<50	<0.50	<0.50	<0.50	<1.0	NA	2.8	NA	NA	NA	NA	375.05	32.17	342.88
MW-3	6/1/2007	<50 j	<0.50	<1.0	<1.0	<1.0	NA	3.1	NA	NA	NA	NA	375.05	31.86	343.19
MW-3	8/22/2007	<50 j	<0.50	<1.0	<1.0	<1.0	NA	4.6	NA	NA	NA	<10	375.05	32.18	342.87
MW-3	11/26/2007	<50 j	<0.50	<1.0	<1.0	<1.0	NA	3.5	<2.0	<2.0	<2.0	<10	375.05	32.69	342.36
MW-3	2/19/2008	<50 j	<0.50	1.2	<1.0	<1.0	NA	2.6	NA	NA	NA	<10	375.05	30.94	344.11
MW-3	5/23/2008	<50	<0.50	<1.0	<1.0	<1.0	NA	3.6	NA	NA	NA	<10	375.05	31.45	343.60
MW-3	8/7/2008	<50	<0.50	<1.0	<1.0	<1.0	NA	3.0	NA	NA	NA	<10	375.05	31.40	343.65
<b>MW-3</b>	<b>12/3/2008</b>	<b>&lt;50</b>	<b>&lt;0.50</b>	<b>&lt;1.0</b>	<b>&lt;1.0</b>	<b>&lt;1.0</b>	<b>NA</b>	<b>2.1</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>&lt;10</b>	<b>375.05</b>	<b>32.12</b>	<b>342.93</b>
MW-4	9/21/2006	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	372.78	31.58	341.20
MW-4	9/28/2006	11,000	<250	<250	<250	<250	NA	13,000	NA	NA	NA	<10,000	372.78	31.57	341.21
MW-4	11/14/2006	30,000	<250	<250	<250	<250 h,i	NA	14,000	<250	<250	<250	<10,000	372.78	32.11	340.67
MW-4	2/1/2007	6,300	50	<5.0	19	120	NA	14,000	NA	NA	NA	NA	372.78	33.23	339.55
MW-4	6/1/2007	8,200 j	52	<25	26	150	NA	11,000	NA	NA	NA	NA	372.78	31.57	341.21
MW-4	8/22/2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	372.78	33.40	339.38
MW-4	11/26/2007	12,000 j	71	<100	<100	<100	NA	20,000	<200	<200	<200	<1,000	372.78	34.74	338.04
MW-4	2/19/2008	13,000 j	<100	<200	<200	<200	NA	18,000	NA	NA	NA	2,900	372.78	29.70	343.08
MW-4	5/23/2008	21,000	<100	<200	<200	<200	NA	16,000	NA	NA	NA	<2,000	372.78	31.67	341.11
MW-4	8/7/2008	27,000	<100	<200	<200	<200	NA	21,000	NA	NA	NA	<2,000	372.78	31.90	340.88
<b>MW-4</b>	<b>12/3/2008</b>	<b>20,000</b>	<b>19</b>	<b>&lt;25</b>	<b>&lt;25</b>	<b>29</b>	<b>NA</b>	<b>21,000</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>2,500</b>	<b>372.78</b>	<b>34.32</b>	<b>338.46</b>
TB-1	2/12/2003	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TB-1	2/28/2003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	12.54	NA

**TABLE 1  
WELL CONCENTRATIONS  
Shell-branded Service Station  
4212 First Street  
Pleasanton, CA**

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)
TB-1	5/14/2003	<50	<0.50	<0.50	<0.50	<1.0	NA	<5.0	NA	NA	NA	NA	NA	12.31	NA
TB-2	2/12/2003	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TB-2	2/28/2003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	12.56	NA
TB-2	5/14/2003	Insufficient water		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	12.54	NA
TB-3	2/12/2003	Well dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TB-3	2/28/2003	Well dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TB-3	5/14/2003	Well dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TB-4	2/12/2003	Well dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TB-4	2/28/2003	Well dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TB-4	5/14/2003	Well dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

**TABLE 1  
WELL CONCENTRATIONS  
Shell-branded Service Station  
4212 First Street  
Pleasanton, CA**

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)
---------	------	----------------	-------------	-------------	-------------	-------------	------------------------	------------------------	----------------	----------------	----------------	---------------	--------------	----------------------------	--------------------------

Abbreviations:

TPPH = Total petroleum hydrocarbons as gasoline by EPA Method 8260B; prior to May 30, 2001, analyzed by EPA Method 8015.

BTEX = Benzene, toluene, ethylbenzene, xylenes by EPA Method 8260B; prior to May 30, 2001, analyzed by EPA Method 8020.

MTBE = Methyl tertiary butyl ether

DIPE = Di-isopropyl ether, analyzed by EPA Method 8260B

ETBE = Ethyl tertiary butyl ether, analyzed by EPA Method 8260B

TAME = Tertiary amyl methyl ether, analyzed by EPA Method 8260B

TBA = Tertiary butyl alcohol, analyzed by EPA Method 8260B

TOC = Top of Casing Elevation

GW = Groundwater

ug/L = Parts per billion

MSL = Mean sea level

ft. = Feet

<n = Below detection limit

NA = Not applicable

**TABLE 1  
WELL CONCENTRATIONS  
Shell-branded Service Station  
4212 First Street  
Pleasanton, CA**

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)
---------	------	----------------	-------------	-------------	-------------	-------------	------------------------	------------------------	----------------	----------------	----------------	---------------	--------------	----------------------------	--------------------------

Notes:

a = Sample was analyzed outside of the EPA recommended holding time.

b = Concentration is an estimate value above the linear quantitation range.

c = The result reported was generated out of time. The sample was originally run within hold time, but needed to be re-analyzed.

d = Sample contains discrete peak in addition to gasoline.

e = Quantity of unknown hydrocarbon(s) in sample based on gasoline.

f = The concentration reported reflect(s) individual or discrete unidentified peaks not matching a typical fuel pattern.

g = The result for this hydrocarbon is elevated due to the presence of single analyte peak(s) in the quantitation range.

h = Sample was originally analyzed with a positive result, however the reanalysis did not confirm the presence of the analyte.

i = Confirmatory analysis was past holding time.

j = Analyzed by EPA Method 8015B (M).

k = The sample chromatographic pattern for TPH does not match the chromatographic pattern of the specified standard. Quantitation of the unknown hydrocarbon(s) in the sample was based upon the specified standard.

l = Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.

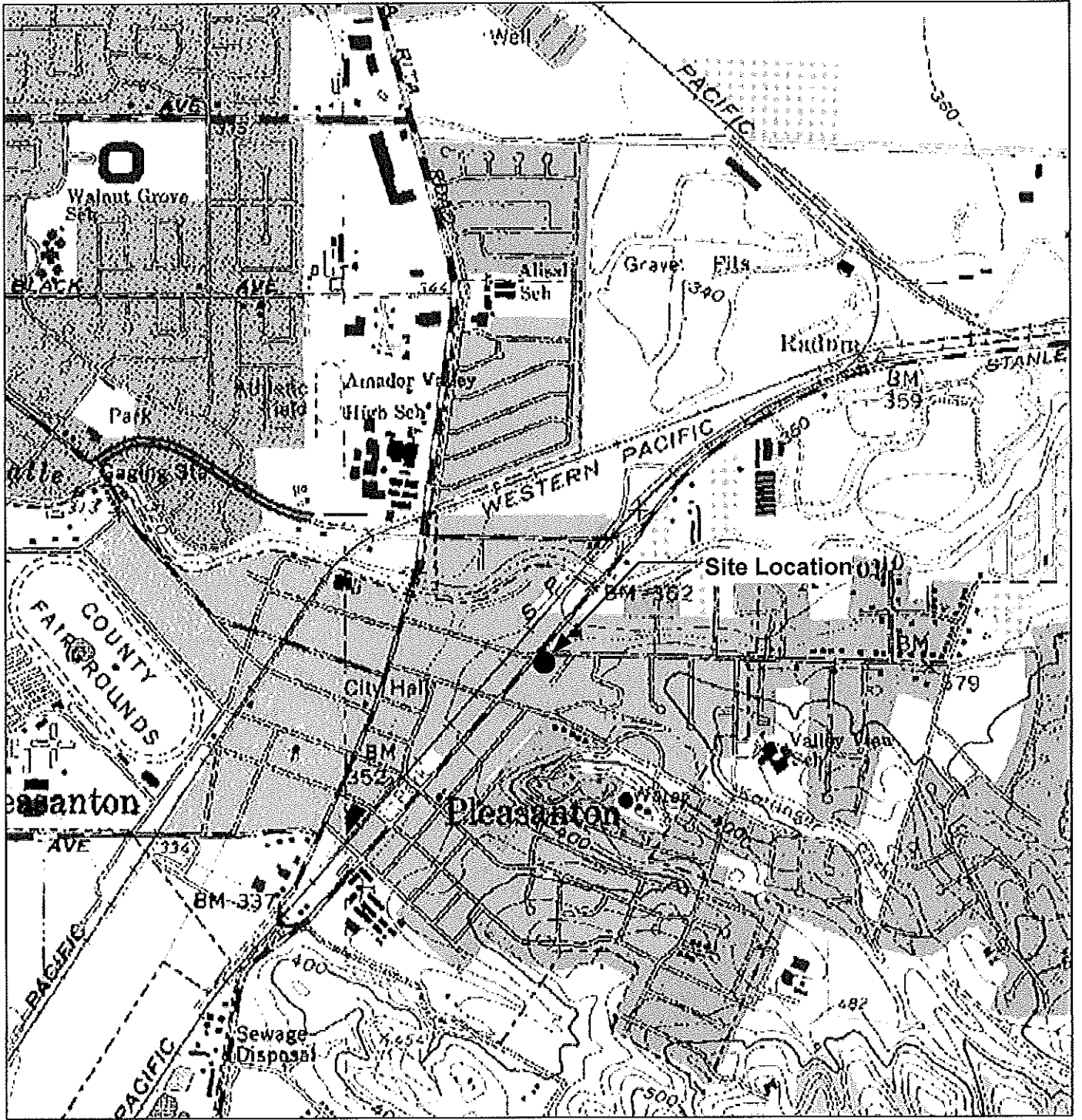
Well MW-1 surveyed on May 4, 1999 by Virgil Chavez Land Surveying of Vallejo, CA.

Site surveyed on March 19, 2000 by Virgil Chavez Land Surveying of Vallejo, CA.

Site surveyed on January 15, 2002 by Virgil Chavez Land Surveying of Vallejo, CA.

3Q06 survey data for wells MW-1B and MW-4 provided by Delta Environmental Consultants, Inc. of San Jose, CA.

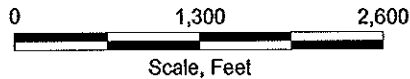
## FIGURES



GENERAL NOTES:  
 Base Map from: DeLorme Yarmouth, ME 04096  
 Source Data: USGS



QUADRANGLE LOCATION



Scale, Feet

FIGURE 1  
 SITE LOCATION MAP

SHELL-BRANDED SERVICE STATION  
 4212 First Street  
 Pleasanton, California

PROJECT NO. SCA421211	DRAWN BY V. F. 5/5/05
FILE NO.	PREPARED BY VF
REVISION NO.	REVIEWED BY





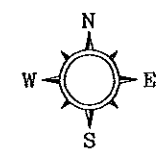
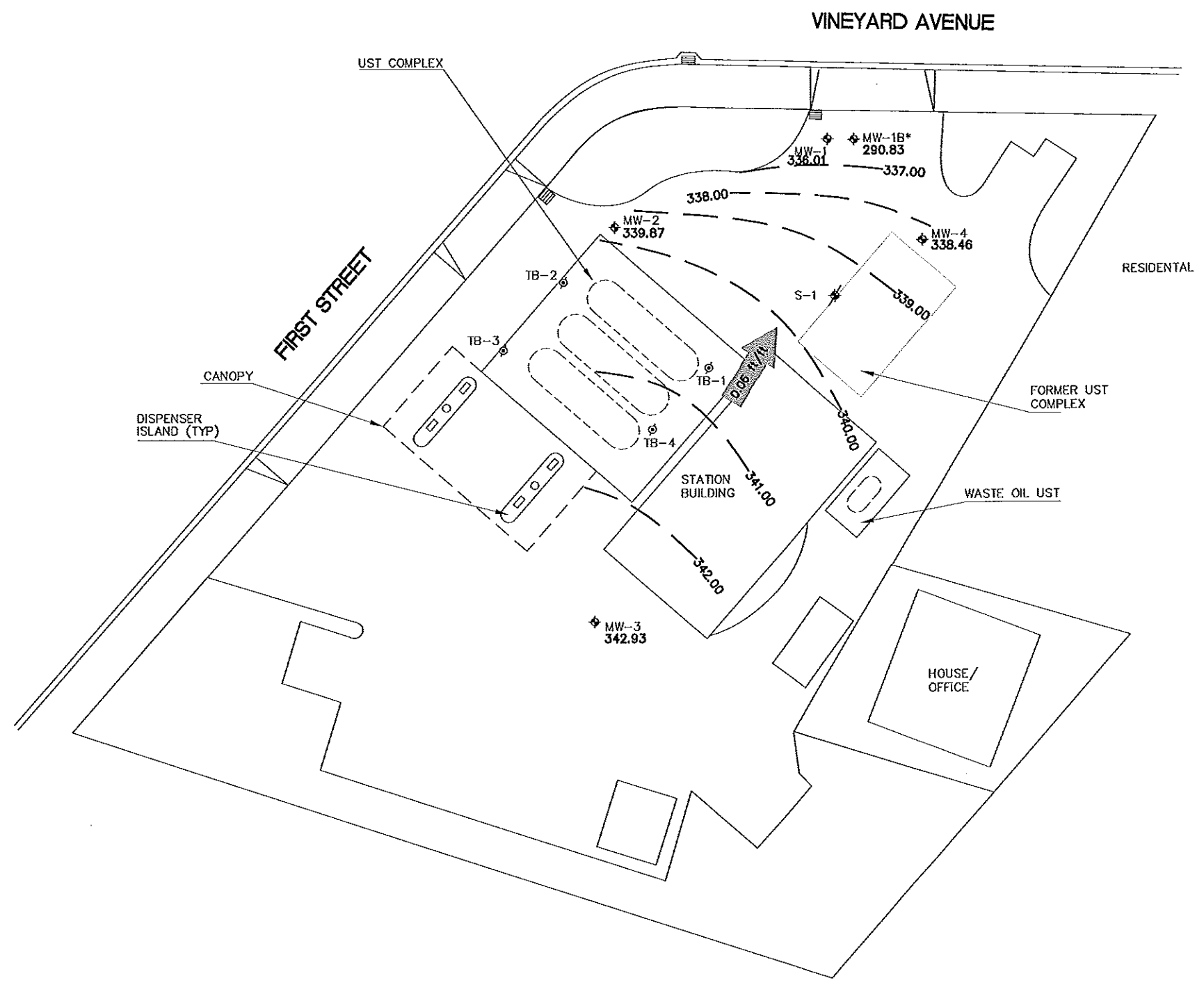
PROJECT NUMBER  
SCA 421211

APPROVED BY

CHECKED BY

DRAWN BY  
J.F.F.  
12/31/2008

0 15 30  
SCALE IN FEET



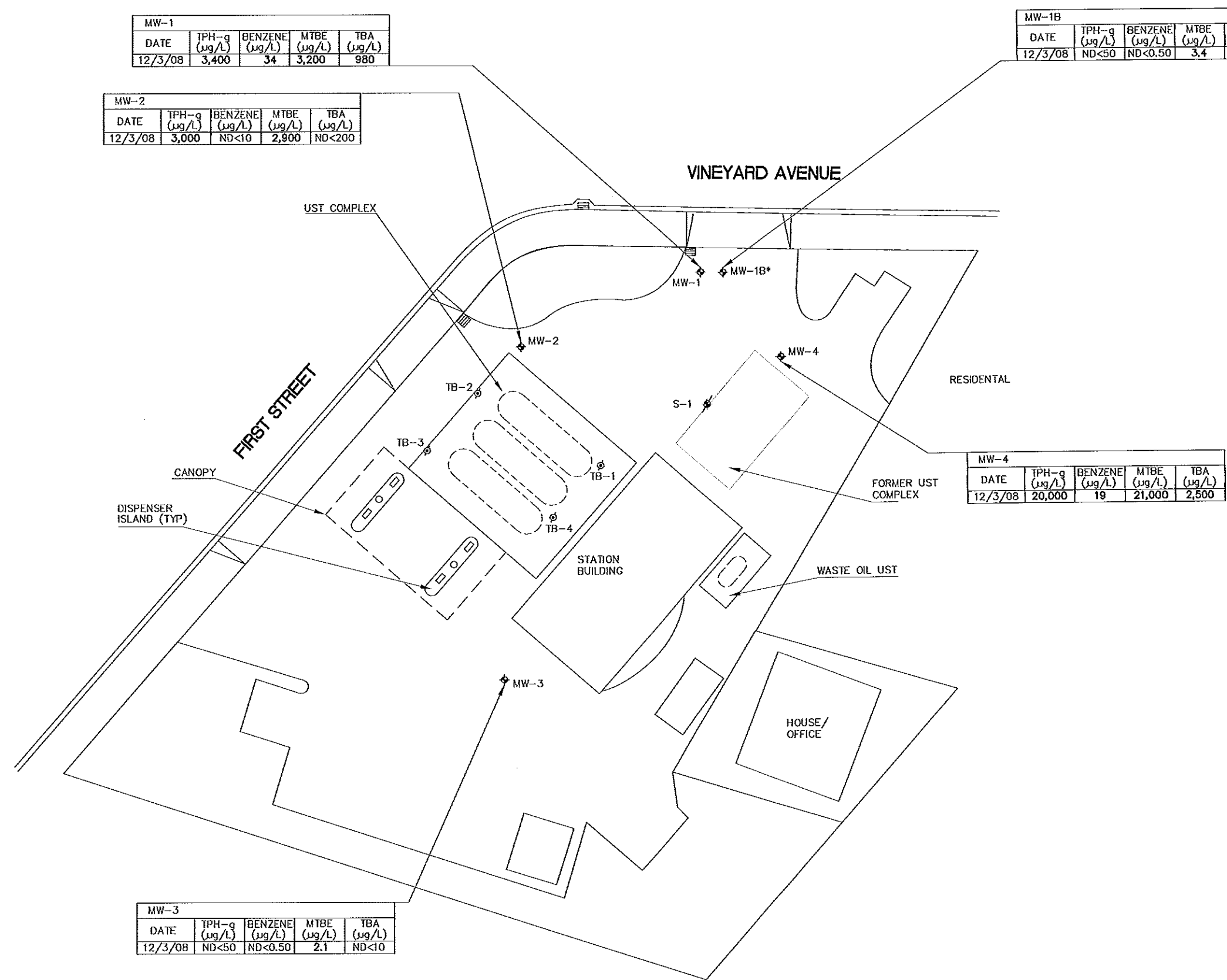
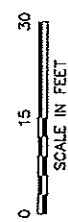
- LEGEND**
- MW-1 ◆ GROUNDWATER MONITORING WELL LOCATION AND DESIGNATION
  - S-1 ✖ DESTROYED GROUNDWATER MONITORING WELL LOCATION AND DESIGNATION
  - TB-1 ○ ABANDONED TANK BACKFILL WELL LOCATION
  - 343.08 GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL (Ft/MSL)
  - 344.00 - - - GROUNDWATER CONTOUR IN FEET ABOVE MEAN SEA LEVEL (Ft/MSL) CONTOUR INTERVAL=1.0 FEET
  - MW-1B\* MONITORS DEEPER WATER BEARING ZONE; NOT USED USED IN CONTOURING
  - ← 0.00 ft/ft APPROXIMATE GROUNDWATER GRADIENT DIRECTION (ft/ft)



SHELL OIL PRODUCTS US  
SHELL-BRANDED SERVICE STATION  
PLEASANTON, CALIFORNIA

FIGURE 2  
GROUNDWATER ELEVATION CONTOUR MAP  
12/3/2008  
4212 FIRST STREET  
PLEASANTON, CALIFORNIA

PROJECT NUMBER SCA421211  
 DRAWN BY J.F.F. 12/31/2008  
 CHECKED BY  
 APPROVED BY



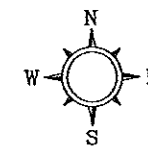
MW-1				
DATE	TPH-g (µg/L)	BENZENE (µg/L)	MTBE (µg/L)	TBA (µg/L)
12/3/08	3,400	34	3,200	980

MW-2				
DATE	TPH-g (µg/L)	BENZENE (µg/L)	MTBE (µg/L)	TBA (µg/L)
12/3/08	3,000	ND<10	2,900	ND<200

MW-1B				
DATE	TPH-g (µg/L)	BENZENE (µg/L)	MTBE (µg/L)	TBA (µg/L)
12/3/08	ND<50	ND<0.50	3.4	ND<10

MW-4				
DATE	TPH-g (µg/L)	BENZENE (µg/L)	MTBE (µg/L)	TBA (µg/L)
12/3/08	20,000	19	21,000	2,500

MW-3				
DATE	TPH-g (µg/L)	BENZENE (µg/L)	MTBE (µg/L)	TBA (µg/L)
12/3/08	ND<50	ND<0.50	2.1	ND<10



- LEGEND**
- MW-1 ◆ GROUNDWATER MONITORING WELL LOCATION AND DESIGNATION
  - S-1 ✂ DESTROYED GROUNDWATER MONITORING WELL LOCATION AND DESIGNATION
  - TB-1 ∅ ABANDONED TANK BACKFILL WELL LOCATION
  - TPH-g TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
  - MTBE METHYL TERT-BUTYL ETHER
  - TBA TERT-BUTYL ALCOHOL
  - µg/L MICROGRAMS PER LITER
  - ND< NOT DETECTED ABOVE LIMIT NOTED
  - MW-1B\* MONITORS DEEPER WATER BEARING ZONE



SHELL OIL PRODUCTS US  
 SHELL-BRANDED SERVICE STATION  
 PLEASANTON, CALIFORNIA

**FIGURE 3**  
 GROUNDWATER HYDROCARBON  
 DISTRIBUTION MAP  
 12/3/2008  
 4212 FIRST STREET  
 PLEASANTON, CALIFORNIA

**APPENDIX A**

**FIELD DATA SHEETS**





## SHELL WELL MONITORING DATA SHEET

BTS #: 081203-M11	Site: 4212 First St.
Sampler: MT, RM	Date: 12/3/08
Well I.D.: MW-1	Well Diameter: <u>2</u> 3 4 6 8 _____
Total Well Depth (TD): 57.20	Depth to Water (DTW): 35.19
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 39.59	

Purge Method: <input checked="" type="checkbox"/> Bailer <input type="checkbox"/> Disposable Bailer <input type="checkbox"/> Positive Air Displacement <input type="checkbox"/> Electric Submersible	Wattera <input type="checkbox"/> Peristaltic <input type="checkbox"/> Extraction Pump Other: _____	Sampling Method: <input checked="" type="checkbox"/> Bailer <input type="checkbox"/> Disposable Bailer <input type="checkbox"/> Extraction Port <input type="checkbox"/> Dedicated Tubing Other: _____
---	---	--

352 (Gals.) X 3 = 1056 Gals. I Case Volume      Specified Volumes      Calculated Volume	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> </thead> <tbody> <tr> <td>1"</td> <td>0.04</td> <td>4"</td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td>3"</td> <td>0.37</td> <td>Other</td> <td>radius<sup>2</sup> * 0.163</td> </tr> </tbody> </table>	Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	3"	0.37	Other	radius <sup>2</sup> * 0.163
Well Diameter	Multiplier	Well Diameter	Multiplier														
1"	0.04	4"	0.65														
2"	0.16	6"	1.47														
3"	0.37	Other	radius <sup>2</sup> * 0.163														

Time	Temp (°F)	pH	Cond. (mS or $\mu$ S)	Turbidity (NTUs)	Gals. Removed	Observations
944	65.0	6.58	1714	57.3	3.5	
950	66.8	6.03	1692	464	7	
958	66.5	6.02	1641	270	10.5	

Did well dewater?    Yes <u>No</u>	Gallons actually evacuated: 10.5	
Sampling Date: 12/3/08	Sampling Time: 1006	Depth to Water: 36.05
Sample I.D.: MW-1	Laboratory: STL	Other: CALSCIENCE
Analyzed for: TPH-G BTEX MTBE TPH-D	Other: SEE WQ	
EB I.D. (if applicable):	@ Time	Duplicate I.D. (if applicable):
Analyzed for: TPH-G BTEX MTBE TPH-D	Other:	
D.O. (if req'd):	Pre-purge: _____ mg/L	Post-purge: _____ mg/L
O.R.P. (if req'd):	Pre-purge: _____ mV	Post-purge: _____ mV

WC  
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### SHELL WELL MONITORING DATA SHEET

BTS #: 081203-MT1	Site: 4212 First St. Pleasanton
Sampler: MT 2M	Date: 12/3/08
Well I.D.: MW-13	Well Diameter: 2 3 ④ 6 8
Total Well Depth (TD): 108.14	Depth to Water (DTW): 80.84
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 86.3	

Purge Method:  Bailer       Watera      Sampling Method:  Bailer  
 Disposable Bailer       Peristaltic       Disposable Bailer  
 Positive Air Displacement       Extraction Pump       Extraction Port  
 Electric Submersible       Other \_\_\_\_\_       Dedicated Tubing

$17.75 \text{ (Gals.)} \times 3 = 53.25 \text{ Gals.}$ 1 Case Volume      Specified Volumes      Calculated Volume	<table border="1" style="width: 100%; border-collapse: collapse; font-size: small;"> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> <tr> <td>1"</td> <td>0.04</td> <td>4"</td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td>3"</td> <td>0.37</td> <td>Other</td> <td>radius<sup>2</sup> * 0.163</td> </tr> </table>	Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	3"	0.37	Other	radius <sup>2</sup> * 0.163
Well Diameter	Multiplier	Well Diameter	Multiplier														
1"	0.04	4"	0.65														
2"	0.16	6"	1.47														
3"	0.37	Other	radius <sup>2</sup> * 0.163														

Time	Temp (°F)	pH	Cond. (mS or $\mu$ S)	Turbidity (NTUs)	Gals. Removed	Observations
1028	64.5	7.06	1050	574	17.7	
1031	66.3	7.06	1058	115	35.4	
1034	66.1	7.07	1059	58.1	33.2	

Did well dewater? Yes  No       Gallons actually evacuated: 53.2

Sampling Date: 12/3/08      Sampling Time: 1042      Depth to Water: 81.06

Sample I.D.: MW-13      Laboratory: STL Other: CALSCIENCE

Analyzed for: TPH-G BTEX MTBE TPH-D Other: SEE COE

EB I.D. (if applicable): @ Time      Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

## SHELL WELL MONITORING DATA SHEET

BTS #: <u>081203-MT1</u>	Site: <u>4212 First St</u>
Sampler: <u>MT</u>	Date: <u>12-03-08</u>
Well I.D.: <u>MW-2</u>	Well Diameter: 2 3 <u>(4)</u> 6 8 _____
Total Well Depth (TD): <u>45.80</u>	Depth to Water (DTW): <u>32.53</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>(PVC)</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: <u>35.18</u>	

Purge Method: Bailer  Watertra  Sampling Method:  Bailer  
 Disposable Bailer  Peristaltic  Disposable Bailer  
 Positive Air Displacement  Extraction Pump  Extraction Port  
 Electric Submersible  Other \_\_\_\_\_  Dedicated Tubing

Other: \_\_\_\_\_

$\frac{8.6 \text{ (Gals.)} \times \text{Specified Volumes}}{\text{Case Volume}} = \text{Calculated Volume Gals.}$	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> </thead> <tbody> <tr> <td>1"</td> <td>0.04</td> <td>4"</td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td>3"</td> <td>0.37</td> <td>Other</td> <td>radius<sup>2</sup> * 0.163</td> </tr> </tbody> </table>	Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	3"	0.37	Other	radius <sup>2</sup> * 0.163
Well Diameter	Multiplier	Well Diameter	Multiplier														
1"	0.04	4"	0.65														
2"	0.16	6"	1.47														
3"	0.37	Other	radius <sup>2</sup> * 0.163														

Time	Temp (°F)	pH	Cond. (mS or $\mu$ S)	Turbidity (NTUs)	Gals. Removed	Observations
1102	67.0	6.88	1084	37.7	8.6	
1103	68.9	6.76	1045	25.1	17.2	
1105	69.1	6.66	1116	25.7	25.8	

Did well dewater? Yes  No  Gallons actually evacuated: 25.8 gal

Sampling Date: 12-03-08 Sampling Time: 1307 Depth to Water: 4'

Sample I.D.: MW-2 Laboratory: STL Other: CALSCIANCE

Analyzed for: TPH-G BTEX MTBE TPH-D Other: see COC

EB I.D. (if applicable): \_\_\_\_\_ @ \_\_\_\_\_ Time Duplicate I.D. (if applicable): \_\_\_\_\_

Analyzed for: TPH-G BTEX MTBE TPH-D Other: \_\_\_\_\_

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV



### SHELL WELL MONITORING DATA SHEET

BTS #: <u>081203-MT1</u>	Site: <u>4212 First St</u>
Sampler: <u>MT</u>	Date: <u>12-03-08</u>
Well I.D.: <u>MW-3</u>	Well Diameter: 2 3 <u>4</u> 6 8 _____
Total Well Depth (TD): <u>34.65</u>	Depth to Water (DTW): <u>32.12</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>(PVT)</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: <u>32.63</u>	

Purge Method: <input checked="" type="checkbox"/> Bailer <input type="checkbox"/> Disposable Bailer <input type="checkbox"/> Positive Air Displacement <input type="checkbox"/> Electric Submersible	Watera <input type="checkbox"/> Peristaltic <input type="checkbox"/> Extraction Pump Other: _____	Sampling Method: <input checked="" type="checkbox"/> Bailer <input type="checkbox"/> Disposable Bailer <input type="checkbox"/> Extraction Port <input type="checkbox"/> Dedicated Tubing Other: _____
---	--	--

$1.6$ (Gals.) X $3$ = _____ Gals. 1 Case Volume      Specified Volumes      Calculated Volume	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> <tr> <td>1"</td> <td>0.04</td> <td>4"</td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td>3"</td> <td>0.37</td> <td>Other</td> <td>radius<sup>2</sup> * 0.163</td> </tr> </table>	Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	3"	0.37	Other	radius <sup>2</sup> * 0.163
Well Diameter	Multiplier	Well Diameter	Multiplier														
1"	0.04	4"	0.65														
2"	0.16	6"	1.47														
3"	0.37	Other	radius <sup>2</sup> * 0.163														

Time	Temp (°F)	pH	Cond. (mS or $\mu$ S)	Turbidity (NTUs)	Gals. Removed	Observations
852	65.5	6.58	840.3	31	1.6	
918	64.2	6.78	839.3	50.9	3.2	
	Dewatered		at 8.5	gallons		DTW-34.01
1214	61.9	7.47	885.8	32.5	—	

Did well dewater?  Yes    No    Gallons actually evacuated: 3.5

Sampling Date: 12-03-08    Sampling Time: 1214    Depth to Water: 33.60

Sample I.D.: MW-3    Laboratory: STL    Other: CAL SCIENCE

Analyzed for: TPH-G BTEX MTBE TPH-D    Other: See COL

EB I.D. (if applicable): \_\_\_\_\_ @ \_\_\_\_\_ Time    Duplicate I.D. (if applicable): \_\_\_\_\_

Analyzed for: TPH-G BTEX MTBE TPH-D    Other: \_\_\_\_\_

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV



# SHELL SITE INSPECTION CHECKLIST

Client Shell Date 8-14-08

Site Address 4212 First St.

Job Number 080814-ECL Technician EC

Site Status Shell Branded Station Vacant Lot Other \_\_\_\_\_

- Inspected / Labeled / Cleaned - all wells on Scope Of Work
- Inspected / Cleaned Components - all other identifiable wells  N/A
- Inspected site for site investigation & site remediation related trip hazards
- Completed all outstanding *BLAINE Wellhead Repair Order(s)*  N/A
- Completed *Shell Wellhead Repair Form(s)*  N/A
- Inspected treatment / remediation system compound for security, cleanliness and appearance  N/A
- Inspected vacant lot for signs of habitation, hazardous materials or terrain, overgrown vegetation and security  N/A
- Visually inspected site drums for condition and proper labeling  N/A
- Unresolved deficiencies identified - "*Notice of Deficient Condition*" form(s) completed  N/A

Notes \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

PROJECT MANAGER ONLY

Checklist Reviewed MAN / 8/14 Notes \_\_\_\_\_  
Initial/Date

# SHELL WELLHEAD REPAIR FORM

## (FOR REPAIR TECHNICIAN)

Site Address 4212 First St. Pleasanton Date 8-14-08  
 Job Number 080814-EC1 Technician EC Page 1 of 1

Inspection Point (Well ID or description of location)	Well Inspected, Cleaned, Labeled - No Further Corrective Action Required	Replaced Cap	Replaced Lock	Replaced Lid Seal	Check Indicates deficiency										All Repairs Completed	Remaining Deficiencies Logged onto BLAINE Repair Order	Remaining Deficiencies Logged onto Notice of Deficient Condition - BLAINE Unable to Repair		
					Casing	Annular Seal	Tabs / Bolts	Box Structure	Apron	Trip Hazard	Below Grade	Not Securable by Design (12" diameter or less)	Lid not marked with words "MONITORING WELL"	Other Deficiency				Not Securable by Design (greater than 12" diameter)	Well Not Inspected (explain in notes)
MW-1								X									X		
	Notes: <u>cleaned</u>																		
	Well box type / size: <u>12" emco</u> Materials used: <u>ZRT, ZB</u>																		
MW-1B						X	X										X		
	Notes: <u>cleaned no tag</u>																		
	Well box type / size: <u>12" emco</u> Materials used: <u>ZRT, ZB, Bag Conc.</u>																		
MW-2						X	X										X		
	Notes: <u>cleaned</u>																		
	Well box type / size: <u>12" emco</u> Materials used: <u>ZRT, ZB, Bag Conc.</u>																		
MW-3						X	X										X		
	Notes: <u>cleaned</u>																		
	Well box type / size: <u>12" emco</u> Materials used: <u>ZRT, ZB, Bag Conc.</u>																		
MW-4						X											X		
	Notes: <u>cleaned no tag</u>																		
	Well box type / size: <u>12" emco</u> Materials used: <u>ZRT, ZB</u>																		
							X												
	Notes:																		
	Well box type / size: Materials used:																		
	Notes:																		
	Well box type / size: Materials used:																		

## **APPENDIX B**

### **FIELD PROCEDURES**

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**BLAINE**  
TECH SERVICES<sup>INC.</sup>

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GROUNDWATER SAMPLING SPECIALISTS  
SINCE 1985

December 23, 2008

Denis Brown  
Shell Oil Products US  
2095 South Wilmington Avenue  
Carson, CA 90810

Fourth Quarter 2008 Groundwater Monitoring at  
Shell-branded Service Station  
4212 First Street  
Pleasanton, CA

Monitoring performed on December 3, 2008

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Groundwater Monitoring Report **081203-MT-1**

This report covers the routine monitoring of groundwater wells at this Shell-branded facility. In accordance with standard procedures that conform to Regional Water Quality Control Board requirements, routine field data collection includes depth to water, total well depth, thickness of any separate immiscible layer, water column volume, calculated purge volume (if applicable), elapsed evacuation time (if applicable), total volume of water removed (if applicable), and standard water parameter instrument readings. Sample material is collected, contained, stored, and transported to the laboratory in conformance with EPA standards. Purgewater (if applicable) is, likewise, collected and transported to the Martinez Refining Company.

Basic field information is presented alongside analytical values excerpted from the laboratory report in the cumulative table of **WELL CONCENTRATIONS**. The full analytical report for the most recent samples and the field data sheets are attached to this report.

At a minimum, Blaine Tech Services, Inc. field personnel are certified on completion of a forty-hour Hazardous Materials and Emergency Response training course per 29 CFR 1910.120. Field personnel are also enrolled in annual eight-hour refresher courses.

Blaine Tech Services, Inc. conducts sampling and documentation assignments of this type as an independent third party. Our activities at this site consisted of objective data and sample collection only. No interpretation of analytical results, defining of hydrological conditions or formulation of recommendations was performed.

Please call if you have any questions.

Yours truly,

Mike Ninokata  
Project Manager

MN/tm

attachments: Cumulative Table of WELL CONCENTRATIONS  
Certified Analytical Report  
Field Data Sheets

cc: Rich Garlow  
Delta Environmental  
175 Bernal Rd., Suite 200  
San Jose, CA 95119

# BLAINE TECH SERVICES, INC. METHODS AND PROCEDURES FOR THE ROUTINE MONITORING OF GROUNDWATER WELLS AT SHELL SITES

Blaine Tech Services, Inc. performs environmental sampling and documentation as an independent third party. We specialize in groundwater monitoring assignments and intentionally limit the scope of our services to those centered on the generation of objective information.

To avoid conflicts of interest, Blaine Tech Services, Inc. personnel do not evaluate or interpret the information we collect. As a state licensed contractor (C-57 well drilling –water – 746684 ) performing strictly technical services, we do not make any professional recommendations and perform no consulting of any kind.

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## SAMPLING PROCEDURES OVERVIEW

### SAFETY

All groundwater monitoring assignments performed for Shell comply with Shell's safety guidelines, 29 CFR 1910.120 and SB-198 Injury and Illness Prevention Program (IIPP). All Field Technicians receive the full 40-hour 29CFR 1910.120 OSHA SARA HAZWOPER course, medical clearance and on-the-job training prior to commencing any work on any Shell site.

### INSPECTION AND GAUGING

Wells are inspected prior to evacuation and sampling. The condition of the wellhead is checked and noted according to a wellhead inspection checklist.

Standard measurements include the depth to water (DTW) and the total well depth (TD) obtained with industry standard electronic water level indicators that are graduated in increments of hundredths of a foot.

The water in each well is inspected for the presence of immiscibles. When free product is suspected, its presence is confirmed using an electronic interface probe (e.g. MMC). No samples are collected from a well containing over two-hundredths of a foot (0.02') of product.

### EVACUATION

Depth to water measurements are collected by our personnel prior to purging and minimum purge volumes are calculated anew for each well based on the height of the water column and the diameter of the well. Expected purge volumes are never less than three case volumes and are set at no less than four case volumes in some jurisdictions.



Well purging devices are selected on the basis of the well diameter and the total volume to be evacuated. In most cases the well will be purged using an electric submersible pump (i.e. Grundfos) suspended near (but not touching) the bottom of the well.

#### PARAMETER STABILIZATION

Well purging completion standards include minimum purge volumes, but additionally require stabilization of specific groundwater parameters prior to sample collection. Typical groundwater parameters used to measure stability are electrical conductivity, pH, and temperature. Instrument readings are obtained at regular intervals during the evacuation process (no less than once per case volume).

Stabilization standards for routine quarterly monitoring of fuel sites include the following: Temperature is considered to have stabilized when successive readings do not fluctuate more than +/- 1 degree Celsius. Electrical conductivity is considered stable when successive readings are within 10%. pH is considered to be stable when successive readings remain constant or vary no more than 0.2 of a pH unit.

#### DEWATERED WELLS

Normal evacuation removes no less than three case volumes of water from the well. However, less water may be removed in cases where the well dewateres and does not immediately recharge.

#### MEASURING RECHARGE

Upon completion of well purging, a depth to water measurement is collected and notated to ensure that the well has recharged to within 80% of its static, pre-purge level prior to sampling.

Wells that do not immediately show 80% recharge or dewatered wells will be allowed a minimum of 2 hours to recharge prior to sampling. The water level at time of sampling will be noted.

#### PURGEWATER CONTAINMENT

All non-hazardous purgewater evacuated from each groundwater monitoring well is captured and contained in on-board storage tanks on the Sampling Vehicle and/or special water hauling trailers. Effluent from the decontamination of reusable apparatus (sounders, electric pumps and hoses etc.), consisting of groundwater combined with deionized water and non-phosphate soap, is also captured and pumped into effluent tanks.

Non-hazardous purgewater is transported under standard Bill of Lading documentation to a Blaine Tech Services, Inc. facility before being transported to a Shell approved disposal facility.

## SAMPLE COLLECTION DEVICES

All samples are collected using a stainless steel, Teflon or disposable bailers.

## SAMPLE CONTAINERS

Sample material is decanted directly from the sampling bailer into sample containers provided by the laboratory that will analyze the samples. The transfer of sample material from the bailer to the sample container conforms to specifications contained in the USEPA T.E.G.D. The type of sample container, material of construction, method of closure and filling requirements are specific to the intended analysis. Chemicals needed to preserve the sample material are commonly placed inside the sample containers by the laboratory or glassware vendor prior to delivery of the bottle to our personnel. The laboratory sets the number of replicate containers.

## TRIP BLANKS

Trip Blanks, if requested, are taken to the site and kept inside the sample cooler for the duration of the event. They are turned over to the laboratory for analysis with the samples from that site.

## DUPLICATES

Duplicates, if requested, may be collected at a site. The Field Technician uses their discretion in choosing the well at which the Duplicate is collected, typically one suspected of containing measurable contaminants. The Duplicate sample is labeled "DUP" and the time of collection is omitted from the COC, thus rendering the sample blind.

## SAMPLE STORAGE

All sample containers are promptly placed in food grade ice chests for storage in the field and transport (direct or via our facility) to the designated analytical laboratory. These ice chests contain quantities of restaurant grade ice as a refrigerant material. The samples are maintained in either an ice chest or a refrigerator until relinquished into the custody of the laboratory or laboratory courier.

## DOCUMENTATION CONVENTIONS

A label must be affixed to all sample containers. In most cases these labels are generated by our office personnel and are partially preprinted. Labels can also be hand written by our field personnel. The site is identified with the store number and site address, as is the particular groundwater well from which the sample is drawn (e.g. MW-1, MW-2, S-1 etc.). The time and date of sample collection along with the initials of the person who collects the sample are handwritten onto the label.

Chain of Custody records are created using client specific preprinted forms following USEPA specifications.

Bill of Lading records are contemporaneous records created in the field at the site where the non-hazardous purgewater is generated. Field Technicians use preprinted Bill of Lading forms.

## DECONTAMINATION

All equipment is brought to the site in clean and serviceable condition and is cleaned after use in each well and before subsequent use in any other well. Equipment is decontaminated before leaving the site.

The primary decontamination device is a commercial steam cleaner. The steam cleaner is de-tuned to function as a hot pressure washer that is then operated with high quality deionized water that is produced at our facility and stored onboard our sampling vehicle. Cleaning is facilitated by the use of proprietary fixtures and devices included in the patented workstation (U.S. Patent 5,535,775) that is incorporated in each sampling vehicle. The steam cleaner is used to decon reels, pumps and ballers.

Any sensitive equipment or parts (i.e. Dissolved Oxygen sensor membrane, water level indicator, etc.) that cannot be washed using the high pressure water, will be sprayed with a non-phosphate soap and deionized water solution and rinsed with deionized water.

## DISSOLVED OXYGEN READINGS

Dissolved Oxygen readings are taken pre- and/or post-purge using YSI meters (e.g. YSI Model 54, 58 or 95) or HACH field test kits.

The YSI meters are equipped with a stirring device that enables them to collect accurate in-situ readings. The probe/stirring devices are modified to allow downhole measurements to be taken from wells with diameters as small as two inches. The probe and reel is decontaminated between wells as described above. The meter is calibrated between wells as per the instructions in the operating manual. The probe and stirrer is lowered into the water column. The reading is allowed to stabilize prior to collection.

## OXYIDATON REDUCTION POTENTIAL READINGS

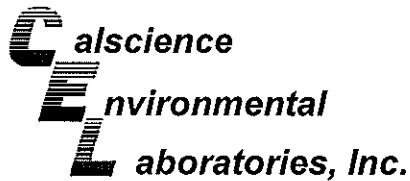
All readings are obtained with either Corning or Myron-L meters (e.g. Corning ORP-65 or a Myron-L Ultrameter GP). The meter is cleaned between wells as described above. The meter is calibrated at the start of each day according to the instruction manual.

## FERROUS IRON MEASUREMENTS

All field measurements are collected at time of sampling with a HACH test kit.

## **APPENDIX C**

### **LABORATORY REPORT AND CHAIN-OF-CUSTODY DOCUMENTATION**



December 17, 2008

Michael Ninokata  
Blaine Tech Services, Inc.  
1680 Rogers Avenue  
San Jose, CA 95112-1105

Subject: **Calscience Work Order No.:** 08-12-0759  
**Client Reference:** 4212 First St., Pleasanton, CA

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 12/6/2008 and analyzed in accordance with the attached chain-of-custody.

Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Systems Manual, applicable standard operating procedures, and other related documentation. The original report of subcontracted analysis, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

A handwritten signature in black ink, appearing to read "Jessie Kim".

Calscience Environmental  
Laboratories, Inc.  
Jessie Kim  
Project Manager

## Analytical Report



Blaine Tech Services, Inc.  
 1680 Rogers Avenue  
 San Jose, CA 95112-1105

Date Received: 12/06/08  
 Work Order No: 08-12-0759  
 Preparation: EPA 5030B  
 Method: LUFT GC/MS / EPA 8260B  
 Units: ug/L

Project: 4212 First St., Pleasanton, CA

Page 1 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-1	08-12-0759-1-A	12/03/08 10:06	Aqueous	GC/MS LL	12/12/08	12/12/08 17:55	081212L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	34	12	25		o-Xylene	ND	25	25	
Ethylbenzene	ND	25	25		Methyl-t-Butyl Ether (MTBE)	3200	25	25	
Toluene	ND	25	25		Tert-Butyl Alcohol (TBA)	980	250	25	
p/m-Xylene	ND	25	25		TPPH	3400	1200	25	
<b>Surrogates:</b>	<b>REC (%)</b>	<b>Control Limits</b>		<b>Qual</b>	<b>Surrogates:</b>	<b>REC (%)</b>	<b>Control Limits</b>		<b>Qual</b>
Dibromofluoromethane	103	74-140			1,2-Dichloroethane-d4	95	74-146		
Toluene-d8	96	88-112			Toluene-d8-TPPH	91	88-112		
1,4-Bromofluorobenzene	90	74-110							

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-1B	08-12-0759-2-A	12/03/08 10:42	Aqueous	GC/MS LL	12/12/08	12/12/08 18:22	081212L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		o-Xylene	ND	1.0	1	
Ethylbenzene	ND	1.0	1		Methyl-t-Butyl Ether (MTBE)	3.4	1.0	1	
Toluene	ND	1.0	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
p/m-Xylene	ND	1.0	1		TPPH	ND	50	1	
<b>Surrogates:</b>	<b>REC (%)</b>	<b>Control Limits</b>		<b>Qual</b>	<b>Surrogates:</b>	<b>REC (%)</b>	<b>Control Limits</b>		<b>Qual</b>
Dibromofluoromethane	104	74-140			1,2-Dichloroethane-d4	99	74-146		
Toluene-d8	97	88-112			Toluene-d8-TPPH	91	88-112		
1,4-Bromofluorobenzene	91	74-110							

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-2	08-12-0759-3-A	12/03/08 13:07	Aqueous	GC/MS LL	12/12/08	12/12/08 18:49	081212L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	10	20		o-Xylene	ND	20	20	
Ethylbenzene	ND	20	20		Methyl-t-Butyl Ether (MTBE)	2900	20	20	
Toluene	ND	20	20		Tert-Butyl Alcohol (TBA)	ND	200	20	
p/m-Xylene	ND	20	20		TPPH	3000	1000	20	
<b>Surrogates:</b>	<b>REC (%)</b>	<b>Control Limits</b>		<b>Qual</b>	<b>Surrogates:</b>	<b>REC (%)</b>	<b>Control Limits</b>		<b>Qual</b>
Dibromofluoromethane	106	74-140			1,2-Dichloroethane-d4	103	74-146		
Toluene-d8	97	88-112			Toluene-d8-TPPH	91	88-112		
1,4-Bromofluorobenzene	91	74-110							

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

## Analytical Report



Blaine Tech Services, Inc.  
 1680 Rogers Avenue  
 San Jose, CA 95112-1105

Date Received: 12/06/08  
 Work Order No: 08-12-0759  
 Preparation: EPA 5030B  
 Method: LUFT GC/MS / EPA 8260B  
 Units: ug/L

Project: 4212 First St., Pleasanton, CA

Page 2 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-3	08-12-0759-4-A	12/03/08 12:14	Aqueous	GC/MS LL	12/12/08	12/12/08 19:17	081212L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		o-Xylene	ND	1.0	1	
Ethylbenzene	ND	1.0	1		Methyl-t-Butyl Ether (MTBE)	2.1	1.0	1	
Toluene	ND	1.0	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
p/m-Xylene	ND	1.0	1		TPPH	ND	50	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
Dibromofluoromethane	108	74-140			1,2-Dichloroethane-d4	108	74-146		
Toluene-d8	99	88-112			Toluene-d8-TPPH	93	88-112		
1,4-Bromofluorobenzene	91	74-110							

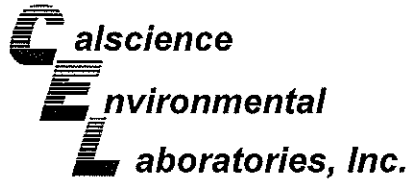
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-4	08-12-0759-5-B	12/03/08 12:34	Aqueous	GC/MS LL	12/12/08	12/12/08 20:11	081212L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	19	12	25		o-Xylene	ND	25	25	
Ethylbenzene	ND	25	25		Methyl-t-Butyl Ether (MTBE)	21000	200	200	
Toluene	ND	25	25		Tert-Butyl Alcohol (TBA)	2500	250	25	
p/m-Xylene	29	25	25		TPPH	20000	1200	25	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
Dibromofluoromethane	110	74-140			1,2-Dichloroethane-d4	115	74-146		
Toluene-d8	103	88-112			Toluene-d8-TPPH	97	88-112		
1,4-Bromofluorobenzene	103	74-110							

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-767-605	N/A	Aqueous	GC/MS LL	12/12/08	12/12/08 14:17	081212L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		o-Xylene	ND	1.0	1	
Ethylbenzene	ND	1.0	1		Methyl-t-Butyl Ether (MTBE)	ND	1.0	1	
Toluene	ND	1.0	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
p/m-Xylene	ND	1.0	1		TPPH	ND	50	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
Dibromofluoromethane	102	74-140			1,2-Dichloroethane-d4	101	74-146		
Toluene-d8	100	88-112			Toluene-d8-TPPH	94	88-112		
1,4-Bromofluorobenzene	96	74-110							

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



## Quality Control - Spike/Spike Duplicate



Blaine Tech Services, Inc.  
1680 Rogers Avenue  
San Jose, CA 95112-1105

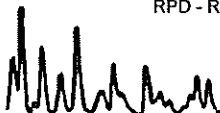
Date Received: 12/06/08  
Work Order No: 08-12-0759  
Preparation: EPA 5030B  
Method: LUFT GC/MS / EPA  
8260B

Project 4212 First St., Pleasanton, CA

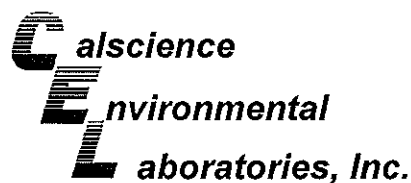
Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
08-12-0756-1	Aqueous	GC/MS LL	12/12/08	12/12/08	081212S01

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	103	99	88-118	3	0-7	
Carbon Tetrachloride	88	93	67-145	6	0-11	
Chlorobenzene	91	90	88-118	1	0-7	
1,2-Dibromoethane	94	94	70-130	0	0-30	
1,2-Dichlorobenzene	93	89	86-116	5	0-8	
1,1-Dichloroethene	94	99	70-130	6	0-25	
Ethylbenzene	98	98	70-130	0	0-30	
Toluene	92	86	87-123	5	0-8	3
Trichloroethene	90	87	79-127	4	0-10	
Vinyl Chloride	58	60	69-129	3	0-13	3
Methyl-t-Butyl Ether (MTBE)	103	118	71-131	7	0-13	
Tert-Butyl Alcohol (TBA)	90	99	36-168	8	0-45	
Diisopropyl Ether (DIPE)	122	122	81-123	0	0-9	
Ethyl-t-Butyl Ether (ETBE)	114	117	72-126	3	0-12	
Tert-Amyl-Methyl Ether (TAME)	104	105	72-126	1	0-12	
Ethanol	68	68	53-149	0	0-31	

RPD - Relative Percent Difference , CL - Control Limit







## Quality Control - LCS/LCS Duplicate



Blaine Tech Services, Inc.  
1680 Rogers Avenue  
San Jose, CA 95112-1105

Date Received: N/A  
Work Order No: 08-12-0759  
Preparation: EPA 5030B  
Method: LUFT GC/MS / EPA 8260B

Project: 4212 First St., Pleasanton, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number		
099-12-767-605	Aqueous	GC/MS LL	12/12/08	12/12/08	081212L01		
Parameter	LCS %REC	LCSD %REC	%REC CL	ME CL	RPD	RPD CL	Qualifiers
Benzene	99	97	84-120	78-126	2	0-8	
Carbon Tetrachloride	105	102	63-147	49-161	2	0-10	
Chlorobenzene	99	97	89-119	84-124	2	0-7	
1,2-Dibromoethane	102	100	80-120	73-127	2	0-20	
1,2-Dichlorobenzene	101	100	89-119	84-124	0	0-9	
1,1-Dichloroethene	104	102	77-125	69-133	2	0-16	
Ethylbenzene	105	102	80-120	73-127	2	0-20	
Toluene	98	97	83-125	76-132	1	0-9	
Trichloroethene	99	94	89-119	84-124	5	0-8	
Vinyl Chloride	68	70	63-135	51-147	2	0-13	
Methyl-t-Butyl Ether (MTBE)	111	109	82-118	76-124	2	0-13	
Tert-Butyl Alcohol (TBA)	96	90	46-154	28-172	6	0-32	
Diisopropyl Ether (DIPE)	114	110	81-123	74-130	4	0-11	
Ethyl-t-Butyl Ether (ETBE)	115	111	74-122	66-130	4	0-12	
Tert-Amyl-Methyl Ether (TAME)	112	108	76-124	68-132	3	0-10	
Ethanol	73	75	60-138	47-151	3	0-32	
TPPH	93	90	65-135	53-147	4	0-30	

Total number of LCS compounds : 17

Total number of ME compounds : 0

Total number of ME compounds allowed : 1

LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit

Work Order Number: 08-12-0759

<u>Qualifier</u>	<u>Definition</u>
*	See applicable analysis comment.
1	Surrogate compound recovery was out of control due to a required sample dilution, therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported with no further corrective action required.
A	Result is the average of all dilutions, as defined by the method.
B	Analyte was present in the associated method blank.
C	Analyte presence was not confirmed on primary column.
E	Concentration exceeds the calibration range.
H	Sample received and/or analyzed past the recommended holding time.
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS Recovery Percentage is within LCS ME Control Limit range.
N	Nontarget Analyte.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
U	Undetected at the laboratory method detection limit.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.





# Shell Oil Products Chain Of Custody Record

### LAB (LOCATION)

- CALSCIENCE ( \_\_\_\_\_ )
- SPL ( \_\_\_\_\_ )
- XENCO ( \_\_\_\_\_ )
- TEST AMERICA ( \_\_\_\_\_ )
- OTHER ( \_\_\_\_\_ )

**Please Check Appropriate Box:**

<input checked="" type="checkbox"/> ENV. SERVICES	<input type="checkbox"/> MOTIVA RETAIL	<input type="checkbox"/> SHELL RETAIL
<input type="checkbox"/> MOTIVA SO&CM	<input type="checkbox"/> CONSULTANT	<input type="checkbox"/> LUBES
<input type="checkbox"/> SHELL PIPELINE	<input type="checkbox"/> OTHER _____	

**Print Bill To Contact Name:** Denis Brown

**INCIDENT # (ENV SERVICES):** 9 8 9 9 5 8 4 0

**PO #:** \_\_\_\_\_ **SAP #:** \_\_\_\_\_

**CHECK IF NO INCIDENT # APPLIES:**

**DATE:** 12-03-08

**PAGE:** 1 of 1

**SAMPLING COMPANY:** Blaine Tech Services

**LOG CODE:** BTSS

**SITE ADDRESS: Street and City:** 4212 First St, Pleasanton

**State:** CA **GLOBAL ID NO:** T0600101259

**ADDRESS:** 1680 Rogers Ave, San Jose, CA 95112

**EDF DELIVERABLE TO (Name, Company, Office Location):** Jon Suing, Delta, Monrovia Office

**PHONE NO.:** 626.256.6662 **E-MAIL:** jsuing@deltaenv.com

**CONSULTANT PROJECT NO:** 081203-MT1

**PROJECT CONTACT (Particulate or POP Report to):** Michael Ninokata

**TELEPHONE:** (408)573-0555 **FAX:** (408)573-7774 **E-MAIL:** mninokata@blainetech.com

**SAMPLER NAME(S) (Print):** M. Todi, R. McCarthy

**LAB USE ONLY:** 08-12-0759

**TURNAROUND TIME (CALENDAR DAYS):**

STANDARD (34 DAY)  5 DAYS  3 DAYS  2 DAYS  24 HOURS  RESULTS NEEDED ON WEEKEND

LA - RWQCB REPORT FORMAT  UST AGENCY:

**REQUESTED ANALYSIS:**

**SPECIAL INSTRUCTIONS OR NOTES:**

CC Rich Garlow rgarlow@deltaenv.com with final report

Run TPH-d w/Silica Gel Clean Up

SHELL CONTRACT RATE APPLIES

STATE REIMBURSEMENT RATE APPLIES

EDD NOT NEEDED

RECEIPT VERIFICATION REQUESTED

**TEMPERATURE ON RECEIPT:** \_\_\_\_\_ °C

LAB USE ONLY	Field Sample Identification	SAMPLING		MATRIX	PRESERVATIVE					NO. OF CONT.	REQUESTED ANALYSIS										TEMPERATURE ON RECEIPT °C	Container PID Readings or Laboratory Notes					
		DATE	TIME		HCL	HNO3	H2SO4	NONE	OTHER		TPH - Purgeable (8260B)	TPH - Extractable (8015M)	BTX (8260B)	5 Oxygenates (8260B) (MTBE, TBA, DIPEL, TAME, ETBE)	MTBE (8260B)	TBA (8260B)	DIPE (8260B)	TAME (8260B)	ETBE (8260B)	1,2 DCA (8260B)			EDB (8260B)	Ethanol (8260B)	Methanol (8015M)		
	MW-1	12-03-08	1050	W	3					3	X	X	X	X													
	MW-1B		1042								X	X	X	X													
	MW-2		1307								X	X	X	X													
	MW-3		1214								X	X	X	X													
	MW-4		1234								X	X	X	X													

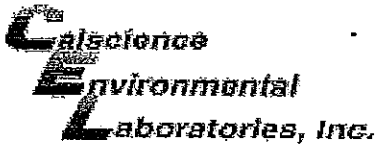
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
		12-03-08	17:00
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
(Sample Custodian)	CEC	12-5-08	1030
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

G.S.O. #10860740

CEC

12/06/08 10:00

05/2/06 Revision



WORK ORDER #: 08-12-0759

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: Blaine Tech

DATE: 12/06/08

**TEMPERATURE:** (Criteria: 0.0°C – 6.0°C, not frozen)

Temperature 4.3 °C - 0.2°C (CF) = 4.1 °C     Blank     Sample

Sample(s) outside temperature criteria (PM/APM contacted by: \_\_\_\_\_).

Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature:     Air     Filter     Metals Only     PCBs Only    Initial: W.S.C

**CUSTODY SEALS INTACT:**

Cooler     \_\_\_\_\_     No (Not Intact)     Not Present     N/A    Initial: W.S.C

Sample     \_\_\_\_\_     No (Not Intact)     Not Present    Initial: W.S.C

**SAMPLE CONDITION:**

	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COC document(s) received complete.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sampler's name indicated on COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container label(s) consistent with COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container(s) intact and good condition.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Correct containers and volume for analyses requested.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Analyses received within holding time.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proper preservation noted on sample label(s).....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Volatile analysis container(s) free of headspace.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tedlar bag(s) free of condensation.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**CONTAINER TYPE:**

Solid:     4ozCGJ     8ozCGJ     16ozCGJ     Sleeve     EnCores®     TerraCores®     \_\_\_\_\_

Water:     VOA     VOA<sup>3</sup>h     VOAna<sub>2</sub>     125AGB     125AGBh     125AGBpo<sub>4</sub>     1AGB     1AGBna<sub>2</sub>

1AGBs     500AGB     500AGBs     250CGB     250CGBs     1PB     500PB     500PBna     250PB

250PBn     125PB     125PBz<sub>2</sub>na     100PBsterile     100PBna<sub>2</sub>     \_\_\_\_\_     \_\_\_\_\_     \_\_\_\_\_

Air:     Tedlar®     Summa®     \_\_\_\_\_

Container:    C:Clear    A:Amber    P:Poly/Plastic    G:Glass    J:Jar    B: Bottle

Preservative:    h:HCL    n:HNO<sub>3</sub>    na<sub>2</sub>:Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>    na:NaOH    po<sub>4</sub>:H<sub>3</sub>PO<sub>4</sub>    s:H<sub>2</sub>SO<sub>4</sub>    z<sub>2</sub>na:ZnAc<sub>2</sub>+NaOH

Checked/Labeled by: W.S.C

Reviewed by: W.S.C

Scanned by: W.S.C